

Remarks

For the Claims:

Applicant submitted claims 1-27. This Office Action rejected claims 1-4, 6, 10, 18, 19, and 21, objected to claims 5, 7-9, 11-17, 20, 22, and 23 as being dependent upon rejected base claims, and allowed claims 24-27. Applicant cancels claims 18-23, amends claims 2, 5, 7, 8, 11, and 13, and retains claims 1, 3-4, 6, 9, 10, 12, 14-17, and 24-27 as originally submitted. Applicant respectfully requests reconsideration.

This Office Action rejects claims 1-4, 18, and 19 under 35 U.S.C. 103(a) as being unpatentable over Maag, U.S. Patent No. 6,631,688, in view of Smith, U.S. Patent No. 4,470,361. In addition, this Office Action rejects claims 6, 10, and 21 under 35 U.S.C. 103(a) as being unpatentable over Maag, as modified by Smith, and further in view of Reed et al., U.S. Patent No. 4,192,241. Maag teaches of a quilting rack for sewing machines. Smith teaches of a railway sewing system for performing a piecing operation in a textile plant, and Reed teaches of an apparatus for quilting layered fabrics.

Objected to claims 5, 7, 8, 11, and 13 are being amended to independent form and include all limitations of independent claim 1 and any intervening claims, from which they formerly depended. Accordingly, Applicant believes the objection to claims 5, 7-9, 11-17 to be overcome, and claims 5, 7-9, 11-17 are now in condition for allowance.

Claim 2, which depends from claim 1, is being amended to correct a minor error. In addition, rejected claims 18, 19, and 21 are being cancelled. The objected to claims 20, 22, and 23,

which formerly depended from independent claim 18 are also being canceled. Accordingly, the rejections and objections to claims 18-23 are no longer relevant.

Regarding independent claim 1, the Office Action alleges that Maag teaches a quilting apparatus that includes a frame and a first pair of opposing rails for accommodating grooved wheels of a sewing machine support for movement along the longitudinal length of the table, and a second pair of rails for supporting and moving the sewing machine in a lateral direction of the table. The Office Action further alleges that grooved wheels of the Maag device ride on the rails and are positively engaged due to such grooves. The Office Action acknowledged that Maag does not suggest the rails being formed of box channel rails for engaging with the wheels. However, Office Action alleges that Smith teaches of a sewing apparatus that includes a sewing machine movable on box channel rails having at least three supporting sides for accommodating wheels within the box periphery. The Office Action concludes that it would have been obvious to construct the rails of Maag to include box channel rails for accommodating the moving wheels.

Regarding independent claim 1, at issue here is when given a fair reading, does the prior art teach or suggest all of Applicant's limitations of claim 1. In this case, Applicant contends that Maag and Smith, alone or in combination fails to teach or suggest the structural limitations recited in claim 1. As stated in In re Woods, 202 USPQ 171, 174 (C.C.P.A. 1979):

The test for obviousness is not whether the features of one reference may be bodily incorporated into another reference....Rather, we look to see whether combined teachings render the claimed subject matter obvious.

Independent claim 1 includes the limitation of the first carriage having first grooved wheels engaged with first and second facing edges of the front and rear box channel rails. For brevity, this limitation of claim 1 is referred to hereinafter as a "dual edge engagement" feature.

When they are given a fair reading, it becomes apparent that neither Maag nor Smith teach or suggest of Applicant's dual edge engagement feature of claim 1. Rather, the Maag grooved wheels ride only on the tops of parallel rails, i.e., single edge engagement, and while Smith teaches of box channel rails, the wheels of the Smith system are not grooved, nor are the wheels engaged with any edges. Since neither Maag nor Smith teach or suggest the dual edge engagement feature of claim 1, a theoretical combination of Maag and Smith also cannot teach or suggest Applicant's invention.

It is Applicant's specification and not the prior art which teaches of a dual edge engagement feature, as recited in claim 1. Applicant has discovered that this dual edge engagement feature largely prevents wheel derailment. Since the wheels are largely prevented from derailing, a more robust and user-friendly quilting table is achieved. In addition, since the wheels largely reside inside of the box channel rails, the first and second facing edges decrease exposure of the inner portion of the rails, and consequently the wheels, to sewing debris, such as thread, lint, dirt, material, and the like. Since there is less debris buildup, the wheels will continue to roll smoothly and reliably within the track system during long term use. Moreover, the dual edge engagement feature results in a quilting table with a lower number of distinct parts than prior art designs, thus making it straightforward to assemble. The robust, user-friendly design of Applicant's invention that operates smoothly and

reliably is well suited for novice users and home quilting enthusiasts.

The Maag device suffers from the very problems that Applicant's dual edge engagement feature of claim 1 solves. In particular, the wheels of the Maag device are subject to derailment since they merely sit on top of rails. In addition, sewing debris can very readily build up on the unprotected track.

The Smith railway sewing system suffers from complexity of design. Pertinent to Applicant's claimed dual edge engagement feature, the Smith railway system entails a complex design of vertical frame plates 56 with upstanding legs 56a and 56b, upper rollers 60, lower rollers 62, front vertical rollers 64, pinion gear 80 that meshes with teeth 20 of a gear rack 18, and the like. Unfortunately, the Smith channel box 16 is largely open, i.e., does not have both front and rear facing edges, on its roller facing side. This enables a significant quantity of sewing debris to buildup around the numerous rollers, gears, and teeth. Accordingly, such a system would be difficult to assemble and maintain by a home user, and debris buildup could cause the rollers to move roughly on the gear rack and/or bind.

The dual edge engagement feature of claim 1, i.e., the recitation of first grooved wheels engaged with first and second facing edges of the front and rear box channel rails, is neither taught nor suggested by the prior art alone, or in combination. Moreover, the dual edge engagement feature of claim 1 improves upon prior art devices, such as those taught by Maag and Smith. Consequently, Applicant believes independent claim 1 to be allowable over a combination of Maag and Smith. Claims 2-4, 6, and 10 depend directly or indirectly from claim 1, and are believed allowable by reason of dependency. Accordingly, Applicant respectfully requests withdrawal of the associated

rejections of claims 1-4, 6, and 10 under 35 U.S.C. 103(a) for the reasons set forth above.

In addition, claim 3 is believed allowable for independent reasons. Claim 3 includes the limitation of a first stop coupled to the first end of a payout bar for imparting a first compressive force to the first support and the payout bar to prevent rotation of the payout bar. Claim 3 includes the further limitation of a second stop coupled to the second end of a take-up bar for imparting a second compressive force to the first support to prevent rotation of the take-up bar.

None of the cited prior art teaches or suggests of stops that impart a compressive force to a support and a payout or take-up bar to prevent its rotation. Indeed, Maag teaches away from Applicant's claimed stops by teaching expressly of a set 54 of a pawl and a gear wheel (serrated in a direction to hold the pawl) on one end of each roller (col. 7, lines 12-14). The pawl and gear wheel set 54 is used to hold a roller stationary and controls unidirectional rotation of the roller.

The pawl and gear wheel set suffers from the very problem Applicant's claimed first and second stops solve. This was discussed in Applicant's specification in paragraph [0008]. In particular, the rollers used on conventional quilting devices are typically cylindrical, and each includes a ratchet mechanism having a gear and pawl for locking the roller and holding the fabric at a desired tension. Unfortunately, the use of a gear and pawl provides stepwise tensioning. Consequently, a user may have to decide whether the fabric should be tensioned too much or less than a desired amount of fabric tensioning. Inappropriate tensioning of the fabric can lead to puckering or loose stitches, which is obviously undesirable to the look of the finished product.

Applicant's first and second stops lock respective payout and take-up rollers through compressive force applied to first support and the corresponding roller to selectively tension the fabric. The compressive force, as opposed to the gear and pawl set of Maag, enables a user to tension the fabric at virtually any desired amount of tension. This allows a user to achieve appropriate tensioning of the fabric, so as to avoid puckering and/or loose stitches.

The Smith reference is irrelevant in regard to claim 3 since it fails to teach of any type of roller locking system. Reed, like Maag, teaches of ratchet bearings that may hold the shaft from rotation in one direction to maintain the fabric taut. Thus, the Reed ratchet bearing suffers from the same problem faced by the pawl and gear wheel set.

Accordingly, for the reasons set forth above, the invention of claim 3 is not rendered obvious by the cited references. Accordingly, claim 3 should be found allowable, notwithstanding the reasons set forth in connection with claim 1.

In light of discussion set forth above, Applicant respectfully requests the withdrawal of the associated rejections of claims 1-4, 6, 10, 18, 19, and 21 under the provisions of 35 U.S.C. §103(a).

Accordingly, this Amendment cancels claims 18-23 and amends claims 2, 5, 7, 8, 11, and 13. Currently amended claims 2, 5, 7, 8, 11, and 13 remain in the application and are believed to be allowable. In addition, claims 1, 3-4, 6, 9, 10, 12, and 14-17 remain in the application as originally submitted and are believed to be allowable. Similarly, previously allowed claims 24-27 remain in the application as originally submitted.

AMENDMENT
SERIAL NO. 10/762,384
Page: 19

Applicant believes that the foregoing amendments and remarks are fully responsive to the rejections and/or objections recited in the 16 December 2005 Office Action and that the present application is now in a condition for allowance. Accordingly, reconsideration of the present application is respectfully requested.

Respectfully submitted,

A handwritten signature in black ink, reading "Charlene R. Jacobsen", written over a horizontal line.

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